

**PATENT COOPERATION TREATY**  
**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
 (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>7366E</b>	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. <b>PCT/FR2005/000269</b>	International filing date ( <i>day/month/year</i> ) <b>07.02.2005</b>	Priority date ( <i>day/month/year</i> ) <b>06.02.2004</b>
International Patent Classification (IPC) or national classification and IPC <b>H01Q1/12</b>		
Applicant <b>SOCIETE DE COMPOSANTS ELECTRIQUES</b>		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <b>6</b> sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising: <ul style="list-style-type: none"> <li>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of <b>2</b> sheets, as follows:           <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</li> <li><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</li> </ul> </li> <li>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s))                       _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).         </li> </ul>
4. This report contains indications relating to the following items: <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Box No. I Basis of the report</li> <li><input type="checkbox"/> Box No. II Priority</li> <li><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li><input type="checkbox"/> Box No. IV Lack of unity of invention</li> <li><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li><input type="checkbox"/> Box No. VI Certain documents cited</li> <li><input type="checkbox"/> Box No. VII Certain defects in the international application</li> <li><input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application</li> </ul>

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/FR2005/000269

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 

This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
 
  - international search (Rule 12.3 and 23.1(b))
  - publication of the international application (Rule 12.4)
  - international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):
 

the international application as originally filed/furnished  
 the description:  
 pages 1-11 \_\_\_\_\_ as originally filed/furnished  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 the claims:  
 nos. \_\_\_\_\_ as originally filed/furnished  
 nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19  
 nos.\* 1-9 received by this Authority on 29.07.2005 with letter 27.07.2005  
 nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 the drawings:  
 sheets 1/2, 2/2 \_\_\_\_\_ as originally filed/furnished  
 sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3.  The amendments have resulted in the cancellation of:
 

the description, pages \_\_\_\_\_  
 the claims, nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (*specify*): \_\_\_\_\_  
 any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
 

the description, pages \_\_\_\_\_  
 the claims, nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (*specify*): \_\_\_\_\_  
 any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/FR2005/000269

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement																									
<p><b>1. Statement</b></p> <table> <tr> <td>Novelty (N)</td> <td>Claims</td> <td>1–9</td> <td>YES</td> </tr> <tr> <td></td> <td>Claims</td> <td></td> <td>NO</td> </tr> <tr> <td>Inventive step (IS)</td> <td>Claims</td> <td>7–9</td> <td>YES</td> </tr> <tr> <td></td> <td>Claims</td> <td>1–6</td> <td>NO</td> </tr> <tr> <td>Industrial applicability (IA)</td> <td>Claims</td> <td>1–9</td> <td>YES</td> </tr> <tr> <td></td> <td>Claims</td> <td></td> <td>NO</td> </tr> </table>			Novelty (N)	Claims	1–9	YES		Claims		NO	Inventive step (IS)	Claims	7–9	YES		Claims	1–6	NO	Industrial applicability (IA)	Claims	1–9	YES		Claims		NO
Novelty (N)	Claims	1–9	YES																							
	Claims		NO																							
Inventive step (IS)	Claims	7–9	YES																							
	Claims	1–6	NO																							
Industrial applicability (IA)	Claims	1–9	YES																							
	Claims		NO																							
<p><b>2. Citations and explanations (Rule 70.7)</b></p> <p>1. Reference is made to the following documents:</p> <p>D1: US-B1-6 236 372 (KRONBERGER RAINER ET AL) 22 May 2001 (2001-05-22)</p> <p>D2: US-A-5 510 804 (TALTY TIMOTHY J) 23 April 1996 (1996-04-23)</p> <p>D3: WO 93/18634 A (PERESANO LUCIANO) 16 September 1993 (1993-09-16)</p> <p>2. The present application fails to meet the requirements of PCT Article 33(1), since the subject matter of independent claim 1 does not involve an inventive step as defined by PCT Article 33(3).</p> <p>D1, which is considered to be the prior art closest to the subject matter of claim 1, describes (the references between parentheses apply to said document):</p> <p>An antenna system for an estate-type motor vehicle that has an opening rear window provided with a de-icing network and a quarter glass (figure 2), which antenna system includes:</p> <ul style="list-style-type: none"> <li>- a first antenna including an aerial produced by screen printing onto the rear window (figure 2.1) and incorporating the de-icing network (figure 2.20), said aerial includes two vertical lines that extend symmetrically relative to the longitudinal vertical median plane of the vehicle</li> </ul>																										

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/FR2005/000269

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
-----------	---

and are placed on top of the de-icing network (see figure 2);

- a second antenna including an aerial screen-printed onto the quarter glass (figure 2, antenna 1, window 6);
- an electronic circuit located near each of the aerials of the first and second antenna (figure 2);

and such that:

- the first antenna is a FM2 antenna for receiving frequency modulated radio waves in the 76 MHz to 108 MHz waveband (page 9, line 42);
- the FM2 antenna comprises a ground conductor (figures 10 and 11) for grounding the FM signal.

Consequently, the subject matter of claim 1 differs from this known D1 in that:

- the second antenna is an ANCILLARY antenna for receiving waves having a frequency of 434 MHz or 315 MHz;
- the aerial of antenna FM2 comprises a ground conductor having a length of around 530 mm.

Claim 1 of the present application is not considered inventive (PCT Article 33(3)) for the following reasons:

The frequencies used and the length of the ground conductor are merely some of several obvious options that a person skilled in the art seeking to solve the stated problem might select, depending on each particular case, and without an inventive step being involved.

Moreover, as mentioned in the present application, the ANCILLARY antenna can be identical to the AM or FM aerials. An example of such an antenna is shown in figure 4 of D2. Said document even mentions the fact that the effective length of the antenna can be

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/FR2005/000269**Box No. V** Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

adjusted very simply so as to radiate at a desired frequency (column 4, lines 21 and 22).

It is important to note that these two features are a mere juxtaposition of features. When combined, these technical features produce no synergistic effect. None of these features is inventive and the juxtaposition of said features is not inventive either.

3. Dependent claims 2 to 7 contain no feature which, when combined with the features of any one of the claims to which they refer, defines subject matter that complies with the PCT requirements of inventive step, for the following reasons:
  - claim 2: the U-shaped de-icing network is provided as an example in D3 (figure 2).
  - claims 3, 4, 5 and 6: all the additional technical features of claims 3 and 4 are disclosed in D1 (see figure 2). Those of claim 5 are shown in figure 4. Furthermore, the additional feature of the last claim (the antenna is an ancillary antenna) is the consequence of a particular selection that has no surprising effect. The same applies to the impedance in claim 6.
4. The combination of features of claims 7, 8 and 9 is not found in the prior art and cannot be derived in an obvious manner therefrom. Provided that the ground conductor of claim 7 is defined more clearly (see Box VIII, point 1), said claims appear to be novel and inventive.

## Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

The application fails to comply with the requirements of PCT Article 6, since claims 1 and 7 are unclear.

1. It is clear from page 7 of the description that the following feature is essential for the definition of the invention:

- a "screen-printed" ground plane (see Box VIII, point 2), i.e. a ground plane located on the window and not on the chassis or the latter used directly as a ground plane.

Since independent claim 1 does not contain this feature, it fails to meet the requirements of PCT Article 6 in combination with PCT Rule 6.3(b), according to which an independent claim must contain all of the technical features essential for the definition of the invention.

2. As stated below, certain features of the antenna system according to claims 1 and 7 serve more to explain the mode of producing the device than to define clearly the device in terms of technical features. The limitations that said features are intended to define do not therefore appear clearly from said claims, contrary to the requirements of PCT Article 6:

- first antenna... produced by *screen printing*;
- second antenna... produced by *screen printing*;
- *screen-printed* ground conductor.